

CLAIMS

1. A process for securing a communication between a  
recognition device and an identification unit able  
5 to communicate with the recognition device by a  
data exchange determined by a recognition  
protocol, one of these items of data corresponding  
to a reference event (R), the process is able to  
communicate in such a way that the recognition  
10 device can authenticate the identification unit so  
as to instruct the unlocking of openable panels of  
a vehicle and/or permit the starting of a vehicle  
and furthermore comprises:
- after an initialization time (T0) defined with  
15 respect to the reference event (R) of the  
recognition protocol, a step of transmission by  
the recognition device of at least two  
transmission data (P1, P2),
  - a step of transmission by the identification  
20 unit of at least two response data (P1R, P2R)  
in response to the transmission data (P1, P2),
  - a step of measuring a reaction time (Tr)  
between the transmission of a data item (P1)  
and the reception of a corresponding response  
25 data item (P1R) by the recognition device, and  
a step of verifying that the measured reaction  
time is less than a predetermined threshold  
wherein the time interval (T) between the  
transmission of two successive transmission data  
30 (P1, P2) and/or the initialization time (T0)  
are/is made to vary randomly.
2. The process as claimed in claim 1, in which at  
least the time interval (T) between the  
35 transmission of two successive transmission data  
(P1, P2) is made to vary in the course of the same  
exchange of data between the recognition device  
and the identification unit.

3. The process as claimed in one of claims 1 or 2, in which the time interval (T) between the transmission of two successive transmission data (P1, P2) and/or the initialization time (T0) are/is made to vary with each exchange of data between the recognition device and the identification unit.
4. The process as claimed in one of claims 1 to 3, furthermore comprising an authentication phase (AUT) comprising in particular a wakeup step (RE), a request step (RQ), an anticollision step (ANT), a selection step (SE) and possibly a response step (RP).
5. The process as claimed in one of claims 1 to 4, in which the step of transmission by the recognition device consists in the transmission of several transmission data (P1, P2, P3) and the step of transmission by the identification unit consists in the transmission of several corresponding response data (P1R, P2R, P3R) and furthermore comprising:
- a step of measuring several reaction times (Tr) between the transmission and the reception of several data (P1, P2, P3, P4),
  - a step of calculating the average of these reaction times,
  - and a step of comparing the latter with the predetermined threshold so as to authenticate the identification unit.
6. The process as claimed in one of claims 1 to 5, in which the reaction times (Tr) are the n smallest reaction times measured, n being a predefined integer.
7. The process as claimed in one of claims 1 to 5, in which the reference event (R) of the recognition

